

THIRD AMENDMENT TO THE
PROJECT AGREEMENT BETWEEN
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
THE BUFFALO NIAGARA RIVERKEEPER, AND HONEYWELL

The Project Agreement (Agreement) between the United States Environmental Protection Agency (U.S. EPA), and the Buffalo Niagara Riverkeeper (Riverkeeper) to conduct Remedial Investigation and Feasibility Study in the Lower Buffalo River, including the Buffalo Harbor and City Ship Canal, Buffalo, New York (Buffalo River RI/FS), signed by U.S. EPA on March 9, 2007, amended on September 11, 2008 and April 15, 2009, is amended a third time as follows:

ARTICLE I - DEFINITIONS AND GENERAL PROVISIONS

1. For purposes of this Agreement:

- g. "Project" or "Buffalo River Project" means work set forth in the original Statement of Work (SOW) for Buffalo River RI/FS, as well as the attached Amendment to the original SOW dated April 20, 2010 (2010 SOW). In addition to the Buffalo River RI/FS activities outlined in the original Project Agreement and SOW, the Project will also include the activities under the 2010 SOW, which include, but are not limited to, the preparation of engineering design plans and bid specifications for the remedial option ultimately selected for the entire Buffalo River AOC, which includes both the sediment and habitat components of the remedy.

ARTICLE II - OBLIGATIONS OF GLNPO AND
THE NON-FEDERAL SPONSORS

3. a. Throughout the Project Period, the GLNPO Project Coordinator and the Non-Federal Sponsors shall arrange to have the U.S.EPA contractor, and the contractors of the Non-Federal Sponsors, furnish each party with monthly progress reports.

b. Notwithstanding Paragraph 2 of this Agreement, if the award of any contract for constructing the Project would result in Total Project Costs exceeding \$6,000,000, GLNPO and the Non-Federal Sponsors shall defer award of that contract and all subsequent contracts for Project construction until they agree to proceed with further contract awards, but in no event shall the contract awards be deferred for more than 9 months. Notwithstanding this general provision for deferring contract awards, GLNPO, after signing a modification to this Agreement that has been negotiated in good faith with the Non-Federal Sponsors to increase the Total Project cost limit in this Paragraph, may award a contract or contracts after the Director of GLNPO determines in writing that the award of the contract or contracts must proceed to comply with law or to protect human life or property from imminent and substantial harm at the prescribed cost share.

ARTICLE IV - METHOD OF PAYMENT

14. As set forth in Paragraph 5, the Non-Federal Sponsors' required contribution is 35% of Total Project Costs. As of the effective date of this Agreement, the Total Project Costs are projected at \$6,000,000, and the Non-Federal Sponsors' contribution required under Paragraph 5 is projected at \$2,100,000, which is 35% of the projected Total Project Costs. If the Non-Federal Sponsors contribute more than 35% of the Total Project Costs pursuant to Paragraph 5(c), the amount of the contribution above 35% will be applied to the Non-Federal Sponsors' contribution for work performed pursuant to any future non-remedial action amendments to the Project Agreement if the Project Agreement is amended in the future by mutual consent of the Parties to such future amendment. These amounts are subject to adjustment by GLNPO, after consultation with the non-Federal Sponsors, and are not to be construed as the total financial responsibilities of GLNPO and the Non-Federal Sponsors.

ARTICLE XX - AUTHORITY OF SIGNATORY TO BIND

48. Each undersigned representative of the Non-Federal Sponsors and GLNPO certifies that he or she is fully authorized to enter into the terms of this Agreement and to execute and legally bind such Party to this Agreement.

49. U.S. EPA and the Non-Federal Sponsors agree that the actions undertaken by the Non-Federal Sponsors in accordance with this Agreement do not constitute an admission of any liability by any Party.

By:



Bharat Mathur

Acting National Program Manager

Great Lakes National Program Office

Date:

5/20/10

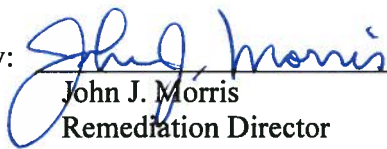
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By: Julie Barrett O'Neill
Julie Barrett O'Neill
Executive Director
Buffalo Niagara Riverkeeper

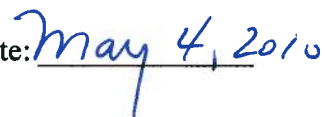
Date: 4/22/2010

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By:


John J. Morris
Remediation Director
Honeywell

Date:



**AMENDED STATEMENT OF WORK FOR THE
REMEDIAL INVESTIGATION/FEASIBILITY STUDY
& REMEDIAL DESIGN OF CONTAMINATED SEDIMENTS, AND IDENTIFICATION,
EVALUATION, AND DESIGN OF AQUATIC HABITAT RESTORATION SITES
IN THE BUFFALO RIVER
BUFFALO RIVER AOC, BUFFALO, NEW YORK**

April 20, 2010

PURPOSE

The proposed Great Lakes Legacy Act (GLLA) project will complete the delineation (nature, extent and volume) of areas where contaminated sediments potentially are impacting macroinvertebrate communities and/or potentially posing a risk to human, fish and wildlife health, and evaluate various remedial options for the entire Buffalo River Area of Concern (AOC). Also, after the designated community input period, engineering design plans and bid specifications for the selected remedial option for the entire Buffalo River AOC will be prepared. Remedial action objectives will take into consideration and attempt to aid in the delisting of certain beneficial use impairments (BUIs) where applicable and feasible. Potential aquatic habitat sites will be identified, evaluated and designed for inclusion in the remediation and restoration of the Buffalo River AOC.

BACKGROUND

The Buffalo River AOC (i.e. site) refers to the lower 6 miles of the Buffalo River, from just upstream of the confluence of the Buffalo River with Cazenovia Creek to the Buffalo Harbor, including the City Ship Canal (see Figure 1-1). Sediments, in certain locations in the AOC, have been impacted by a variety of historical industrial, municipal, and other discharges of constituents, including polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs, primarily aroclors 1242, 1254, and 1260), and metals such as arsenic, chromium, lead and mercury. The State of New York has issued fish consumption advisories for the Buffalo River due to PCBs. The Buffalo River Remedial Action Plan (RAP) identified seven BUIs, five of which identified contaminated sediments as being the likely cause (*Buffalo River RAP Status Report Update, 2005*). The impaired beneficial uses identified in the RAP include:

- Restrictions on Fish & Wildlife Consumption
- Degradation of Fish Populations
- Fish Tumors and Other Deformities
- Degradation of Benthos
- Restrictions on Dredging
- Degradation of Aesthetics
- Loss of Fish and Wildlife Habitat

For nearly two decades, local, state, federal and non-profit stakeholders have worked cooperatively to assess the potential ecological and human health risks posed by contaminated sediments within the Buffalo River AOC.

Buffalo Niagara Riverkeeper advised the New York State Office of Parks, Recreation and Historic Preservation (SHPO) of its sampling and the Buffalo River Legacy Act project on March 30, 2007. By letter dated June 14, 2007, the SHPO informed Riverkeeper that it did not object to the sampling plan.

PROJECT COORDINATION TEAM

U.S. EPA GLNPO, Buffalo Niagara Riverkeeper, and Honeywell will lead the Buffalo River Project Coordination Team (PCT). The other members of the PCT include New York State Department of Environmental Conservation, U.S. Army Corps of Engineers (USACE), U.S. EPA Region 2, and various consultants. While an individual entity may have the technical/financial lead on a particular task (as described later in this document), all PCT members will have an opportunity to review and provide input on the interim deliverables.

TASKS/SCHEDULE

The goals of this project are to perform certain supplemental investigations, identify and evaluate remedial/restoration alternatives for contaminated sediments and habitat sites, select a proposed remedial option, prepare remedial engineering design plans and bid specifications for sediment remediation and mitigation/restoration of habitat sites, and evaluate the sufficiency of source control. Public outreach and coordination activities will span the scope and duration of the project. Due dates are specified for a few of the major milestones in order to meet the GLNPO target of initiating the remedial action in 2011. The division of tasks amongst partners is shown in Table 1. Specific objectives to meet the goals of this project include:

Objective 1: Sampling and Analysis in Support of RI/FS

The partners will determine if the collection of additional sediment, toxicity, surface water, and/or biota data is required to determine the extent of sediment contamination, evaluate the sufficiency of source control, and select a remedial alternative. Specific sample locations will be identified prior to sampling and documented in a Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP), along with sampling and analytical methods, roles and responsibilities, and health and safety requirements.

After sampling, a data evaluation report will be prepared and include a summary of the sampling and analytical methods; field logs and photos; sample results; the data validation report (evaluating data quality and providing recommendations regarding data usability); and the electronic data deliverable (EDD) containing sample results and quality assurance/quality control data.

A site-specific conceptual site “model” will be developed that provides a descriptive narrative of current environmental baseline conditions and enables evaluation of remedial actions that enhance the river’s beneficial uses.

Project Milestones

- Additional data collection
 - Prepare Draft FSP and QAPP
 - Comment period for stakeholders of the draft FSP and QAPP
 - Finalize FSP, QAPP, and laboratory agreements
 - Mobilize the equipment
 - Conduct sediment sampling event – September 2008
 - Conduct sample analysis
 - Validate sediment data
- Develop remedial action objectives (RAOs)
- Derive site specific remedial targets (merging analysis of new data with existing data)
- Prepare draft Data Evaluation Report
- Prepare final Data Evaluation Report – March 2009
- Develop conceptual site model

Objective 2: Focused Feasibility Study for Contaminated Sediment and Aquatic Habitat

Contaminated Sediment

A comprehensive list of technology types and specific process options to manage contaminated Buffalo River sediment will be assessed against relevant criteria commonly employed for feasibility studies, including implementability, effectiveness of achieving RAOs (including estimated timeframes for RAOs), and relative cost.

The individual remedial alternatives retained after this assessment will be assessed against each of the evaluation criteria and a comparative analysis of the alternatives relative to one another will be conducted. The remedial alternatives evaluation will include a review of the short-term and long-term effects of the alternatives on human health and the environment. The PCT leads will identify the remedy that they each believe is the most appropriate alternative for managing risks associated with Buffalo River sediment.

Aquatic Habitat

The PCT will identify and prioritize aquatic habitat mitigation and restoration projects below the water line and/or in adjacent riparian zone in the Buffalo River AOC.

A recommended restoration approach for a select number of habitat sites within the Buffalo River AOC will be included in the FS. The results shall be documented in the Ecology Engineering Evaluation (EEE) Report, which will include a description of various restoration practices and techniques, examples of how those techniques may be combined, proposed restoration alternatives for each site, and an evaluation of those alternatives against evaluation criteria identified by the Habitat Restoration Subgroup.

Project Milestones

- Screen remedial technologies and process options

- Identify aquatic habitat mitigation/restoration projects – July 2009
- Complete remedial alternatives evaluation for sediment and habitat
- Prepare Draft FS and EEE Reports – November 2009
- Obtain community input on FS – Spring 2010
- Prepare Final FS and EEE Reports – May 2010

Objective 3: Evaluation of Sufficiency of Source Control

Buffalo Niagara Riverkeeper, in coordination with appropriate regulatory agencies, will access all existing regulatory data/information that will be used to prepare a report on the status of source control efforts related to the potential for significant re-contamination following the cleanup. All known or potential significant sources of re-contamination will be identified, including: CSO discharge, runoff from industrial property, and contaminated groundwater inflow from upland properties. A report will be produced to summarize the findings.

Project Milestone

- Prepare source control summary report – 4th Quarter 2010

Objective 4: Contaminated Sediment Remedial Engineering Design

The draft RI/FS identifies Remedy Alternative 5 as the preliminary preferred alternative. Subject to completion of the remedy selection process, including but not limited to community input, the GLLA PCT proposes the design of Remedy Alternative 5, which is a combined remedy that includes sediment removal and capping over a three year period and at an estimated cost of approximately \$40 million. More specifically, this remedy proposes the dredging of approximately 820,000 cubic yards from the river and ship canal and disposal of the dredged material in the USACE confined disposal facility. A small volume of dredge material (< 1,000 cubic yards) is expected to require disposal at a TSCA- or RCRA-approved disposal facility. A sediment cap is targeted for the head of the ship canal (approximately 292,800 square feet). Additionally, Remedy Alternative 5 includes short and long term monitoring, and habitat mitigation and restoration activities, to evaluate the achievement of site-specific RAOs and progress made towards delisting BUIs.

During the community input period, the PCT will determine what additional data is needed to move from the FS to the remedial design phase. The PCT understands that comments received during the input period may result in changes to the preliminary preferred alternative and/or modifications to the remedial design. However, design activities, which would apply regardless of such changes, include, but are not limited to: collection of bathymetric data along the Buffalo River shoreline, chemical analysis of archived sediment samples, collection and chemical/physical analysis of new sediment samples to further refine the dredge boundaries, probing study to determine depth to till, shoreline/bulkhead stability analysis, coordination with permitting agencies, and baseline biological sampling prior to remedy implementation, if necessary.

EPA will utilize existing and newly collected data to develop engineering design plans and specifications (to at least the 50% level) for the selected remedial alternative for the entire Buffalo River AOC. The engineering design plans and specifications will include the vertical

and horizontal extent of contamination, estimated sediment volumes, proposed remedial option, disposal options as needed, remedial cost estimates and bid specifications. The design documents will include draft applications for all permits required to implement the remedial action.

Project Milestones

- Sampling and data analysis – 2nd Quarter 2010
- Preliminary design (30%) – 3rd Quarter 2010
- Pre-final design (50%) – 1st Quarter 2011

Objective 5: Engineering Design of Aquatic Habitat Mitigation and Restoration Projects

A reauthorized Great Lakes Legacy Act of 2008 allows for aquatic habitat restoration that is carried out in conjunction with a contaminated sediment remediation project. Design activities will include, but are not limited to, obtaining land owner acceptance; soil testing; selection of species, number, form, size and placement of plant material; and refinement of methods and targeted areas for non-native invasive plant removal. Engineering design plans will be finalized for all of the aquatic habitat projects described in the EEE Report. The PCT ultimately will determine which restoration project(s) is proposed for implementation in conjunction with the sediment remediation project under the GLLA, versus another funding source or program.

The PCT will also coordinate with GLNPO on the Buffalo River Ecological Restoration Master Plan.

Project Milestones

- Sampling and data analysis – 2nd Quarter 2010
- Preliminary engineering design of aquatic habitat mitigation and restoration projects – 4th Quarter 2010
- Pre-final engineering design of aquatic habitat mitigation and restoration projects – 2nd Quarter 2011

Table 1 – Division of Project Tasks

Task	Partner Responsibilities*		
	GLNPO	Honeywell	Riverkeeper
Lower River field sampling & analysis	O	O	C
FSP for data gaps (drafts)	O	C	O
FSP (final)	C	C	O
QAPP	C	C	O
Field sampling & analysis	C	C	O
Data validation	C	C	O
Data evaluation	O	C	O
Draft and draft final FS	O	C	O
Draft final chapter of FS	C	O	O
Aquatic habitat site	O	C	C

identification/evaluation			
Final FS	X	X	O
Remedial engineering design plans and bid specifications for contaminated sediment	X	O	O
Engineering design of habitat mitigation and restoration	X	O	O
Source control summary report	O	O	X
Public input/outreach & coordination	X	X	X

*This table indicates which entity is the lead on a specific task, which relates to financial responsibility or coordination responsibility. All partners will be involved in the decision making process as described above under Project Coordination Team.

X = lead entity

O = review and comment

C = complete

BUDGET

The estimated cost to complete the RI/FS and remedial design as proposed within this project description (including the original SOW) is \$6,000,000, (\$5,585,000 plus contingency costs). As a non-remediation GLLA project, the cost share ratio is 35% non-federal, 65% federal.

As a non-Federal sponsor, Buffalo Niagara Riverkeeper will leverage its relationship with NYSDEC to provide at least \$400,000 of in-kind resources for sediment sampling and analysis, and coordinate with NYSDEC to access all existing regulatory data/information that will be used to prepare a report that summarizes the status of source control efforts related to the potential for significant re-contamination following the cleanup. As a non-Federal sponsor, Honeywell will provide at least \$1,985,000 of in-kind resources for the sampling and analysis, evaluation of new and existing information, completion of the remedial alternatives evaluation, and drafts of the FS (including an evaluation of restoration alternatives for habitat sites). Federal costs associated with sediment sampling, analysis, final chapter of the FS, and RD plans and specs for sediment remediation and habitat mitigation/restoration are estimated to be \$3,200,000.

